

CD54HC258/3A CD54HCT258/3A

Burn-In Test-Circuit Connections

Static	STATIC BURN-IN I			STATIC BURN-IN II		
	OPEN	GROUND	V _{CC} (6V)	OPEN	GROUND	V _{CC} (6V)
CD54HC/HCT258	4,7,9,12	1-3,5,6,8,10,11, 13-15	16	4,7,9,12	8	1-3,5,6,10,11,13-16
Dynamic	OPEN	GROUND	1/2 V _{CC} (3V)	V _{CC} (6V)	OSCILLATOR	
CD54HC/HCT258	—	8,15	4,7,9,12	16	50 kHz	25 kHz
					2,3,5,6,10,11, 13,14	1

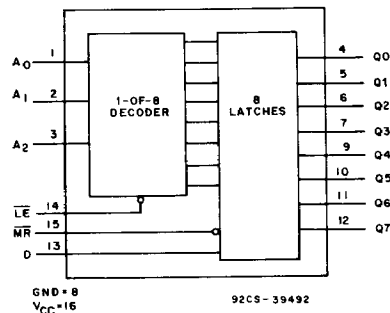
NOTE: Each pin except V_{CC} and Gnd will have a resistor of 2k-47k ohms.

8-Bit Addressable Latch

CD54HC259/3A CD54HCT259/3A

The RCA-CD54HC259 and CD54HCT259 Addressable Latch features the low-power consumption associated with CMOS circuitry and has speeds comparable to low-power Schottky.

This latch has three active modes and one reset mode. When both the Latch Enable (LE) and Master Reset (MR) inputs are low (8-line Demultiplexer mode) the output of the addressed latch follows the Data input and all other outputs are forced low. When both MR and LE are high (Memory latches hold the last data presented before the LE transition from low to high. A condition of LE low and MR high (addressable Latch mode) allows the addressed latch's output to follow the data input; all other latches are unaffected. The Reset mode (all outputs low) results when LE is high and MR is low.



Package Specifications

See Section 11, Fig. 11

FUNCTIONAL DIAGRAM

Static Electrical Characteristics (Limits with black dots (•) are tested 100%)

CHARACTERISTICS	TEST CONDITIONS								UNITS	
	HC/HCT				V _{IN}		LIMITS			
	V _{DD}	V _O	I _O	V _{CC} or GND	HC V _{IL} or V _{IH}	HCT V _{IL} or V _{IH}	MIN.	MAX.		
Quiescent Device Current I _{CC}	25°C	6	—	—	6, 0	—	—	—	8•	μA
	-55°C	6	—	—	6, 0	—	—	—	160•	
	+125°C									

The complete static electrical test specification consists of the above by-type static tests combined with the standard static tests in the beginning of this section.

CD54HC259/3A CD54HCT259/3A

HCT INPUT LOADING TABLE

INPUT	UNIT LOAD*
A0-A2, \overline{LE}	1.5
D	1.2
\overline{MR}	0.75

*Unit load is ΔI_{CC} limit specified in Static Characteristics Chart, e.g., 360 μ A max. @ 25° C.

Switching Speed (Limits with black dots (•) are tested 100%.)

SWITCHING CHARACTERISTICS ($C_L = 50$ pF, Input $t_r, t_f = 6$ ns)

CHARACTERISTIC	SYMBOL	TEST CONDITIONS V_{CC} V	LIMITS								UNITS
			25° C				-55° C to +125° C				
			HC		HCT		54HC		54HCT		
Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.				
Propagation Delay D to Q		2	—	185	—	—	—	280	—	—	ns
		4.5	—	37•	—	39•	—	56•	—	59•	
		6	—	31	—	—	—	48	—	—	
\overline{LE} to Q	t_{PLH}	2	—	170	—	—	—	255	—	—	
		4.5	—	34•	—	38•	—	51•	—	57•	
		6	—	29	—	—	—	43	—	—	
A to Q	t_{PHL}	2	—	185	—	—	—	280	—	—	
		4.5	—	37•	—	41•	—	56•	—	61•	
		6	—	31	—	—	—	48	—	—	
\overline{MR} to Q		2	—	155	—	—	—	235	—	—	
		4.5	—	31•	—	39•	—	47•	—	59•	
		6	—	26	—	—	—	40	—	—	
Output Transition Time	t_{TLH} t_{THL}	2	—	75	—	—	—	110	—	—	
		4.5	—	15	—	15	—	22	—	22	
		6	—	13	—	—	—	19	—	—	
Input Capacitance	C_i	—	—	10	—	10	—	10	—	10	pF

Burn-In Test-Circuit Connections (Use Static II for /3A burn-in and Dynamic for Life Test.)

Static	STATIC BURN-IN I			STATIC BURN-IN II		
	OPEN	GROUND	V_{CC} (6V)	OPEN	GROUND	V_{CC} (6V)
CD54HC/HCT259	4-7,9-12	1-3,8,13-15	16	4-7,9-12	8	1-3,13-16
Dynamic	OPEN	GROUND	$1/2 V_{CC}$ (3V)	V_{CC} (6V)	OSCILLATOR	
CD54HC/HCT259	—	2,3,8,14	4-7,9-12	16	50 kHz	25 kHz
					13,15	1

NOTE: Each pin except V_{CC} and Gnd will have a resistor of 2k-47k ohms.